



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/611,312	07/01/2003	Robert Kast	LEGAP005	3939

21912 7590 07/24/2006

VAN PELT, YI & JAMES LLP
10050 N. FOOTHILL BLVD #200
CUPERTINO, CA 95014

EXAMINER

NGUYEN, CINDY

ART UNIT	PAPER NUMBER
----------	--------------

2161

DATE MAILED: 07/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/611,312

Applicant(s)

KAST ET AL.

Examiner

Cindy Nguyen

Art Unit

2161

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 April 2006.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-25 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 01 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>09/30/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This is in response to amendment filed 04/25/06.

Response to Arguments

Applicant's arguments have been fully considered but they are not persuasive.

Regarding the Applicant's argument that Neither Midgley nor Azagury describe that a "synchronization operation uses the first processing thread to copy a first file from a first data storage to a second data storage, and a second processing thread to copy a second file from the first data storage to the second data storage, wherein the first file is copied substantially concurrently with the copying of the second file". In response, Midgley clearly discloses multiple threads to perform the synchronization as the synchronization replication process operates in cooperation with the agent processes to create a replica of selected files maintained within the database see paragraphs 0033, 0050.

Regarding the Applicant's argument that Neither Midgley nor Azagury describe that a "main thread can process a synchronization type of command and a dynamic replication type of command" and "synchronization thread is configured to process a command of the synchronization type substantially concurrently with the processing by the main thread of a command of the synchronization type and to not process a command of the synchronization type at a time when the main thread is processing a command of the dynamic replication type". In response, Midgley clearly discloses "main thread can process a synchronization type of command and a dynamic replication type

Art Unit: 2161

of command" as synchronization replication process 40 and "synchronization thread is configured to process a command of the synchronization type substantially concurrently with the processing by the main thread of a command of the synchronization type and to not process a command of the synchronization type at a time when the main thread is processing a command of the dynamic replication type" as two types of replication processes may be running in parallel acts to have changes made to the files see paragraphs 0033, 0050.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 8 and 19 recites the limitation "determined at least in part by on order".

It is not clear what is meant by "in part".

The terms "synchronization type of command" and "dynamic replication type of command" appears only in the claims. These terms is not defined by the specification and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 9, 18 and 20 rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 9, 18 and 20 are directed to transferring data for a method, and fail to specify a concrete, useful and tangible embodiment of it. Thus none of these claims falls within the bounds of the categories of statutory inventions set forth above.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 4, 6-9, 18-25 are rejected under 35 U.S.C. 102(e) as being anticipated by Midgley et al. (US 20030074378) (Midgley)

Regarding claims 1, 8 and 19, Midgley discloses: A method, a system and a computer program product for transferring data comprising: performing a synchronization operation wherein the synchronization operation uses a first processing thread to copy a first file from a first data storage to a second data storage, and a second a second processing thread to copy file from the first data storage to the second data storage, wherein the first file is copied substantially concurrently with the copying of the second file, and wherein the first operation results in a first copied file

and a second copied file in the second data storage (paragraphs 0033, 0058); and performing a real time replication operation wherein the real time replication operation updates the first copied file and the second copied file in an order determined at least in part by an order in which changes were made to the first file and the second file, respectively, as stored in the first data storage (paragraphs 0033, 0050, 0051, Midgley).

In addition, Midgley discloses: a processor (10, fig. 1, Midgley); a first memory coupled to the processor, wherein the first memory is associated with a first file and a second file (paragraph 0032, Midgley).

Regarding claim 4, all the limitations of this claim have been noted in the rejection of claim 1 above. In addition, Midgley discloses: wherein the first file and the second file are copied regardless of order (paragraphs 0063, 0064, Midgley).

Regarding claim 6, all the limitations of this claim have been noted in the rejection of claim 1 above. In addition, Midgley discloses: wherein a first command associated with the first operation can be processed by a first thread or a second thread, and a second command associated with the second operation can be processed by the second thread (0050, Midgley).

Regarding claims 7, all the limitations of this claim have been noted in the rejection of claim 1 above. In addition, Midgley discloses: wherein the copying of the first file is associated with a first connection between the first data storage and the second data storage, and the copying of the second file is associated with a second connection between the first memory and the second memory (paragraphs 0058, Midgley).

Regarding claims 9, 18 and 20, Midgley discloses: A method, a system and a computer program product for transferring data associated with a real-time data replication system comprising: providing a main thread, wherein the main thread can process a synchronization type of command dynamic replication type of command (paragraphs 0050, 0058, Midgley); providing a synchronization thread, wherein the synchronization thread can process the synchronization type of command, but not dynamic replication type of command (paragraphs 0050, 0058, Midgley); wherein the synchronization thread is configured to process a command of the synchronization type substantially concurrently with the processing a by the main thread of a command of the synchronization type and to not process a command of the synchronization type at the time the main thread is processing a command of the dynamic replication type (paragraphs 0050, 0058, Midgley).

Regarding claim 21, all the limitations of this claim have been noted in the rejection of claim 9 above. In addition, Midgley discloses: wherein the main thread, the synchronization thread or both process commands from a kernel cache

(paragraphs 0068, 0072).

Regarding claim 22, all the limitations of this claim have been noted in the rejection of claim 21 above. In addition, Midgley discloses: wherein the synchronization thread skips commands in the kernel cache that have been or are being processed by other threads until it finds a synchronization command that has not yet been and is not currently being processes by another thread (0071).

Regarding claim 23, all the limitations of this claim have been noted in the rejection of claim 21 above. In addition, Midgley discloses: wherein the synchronization thread does not move ahead of the main thread unless the main thread is performing a synchronization command (0071, 0073).

Regarding claim 24, all the limitations of this claim have been noted in the rejection of claim 21 above. In addition, Midgley discloses: wherein if a synchronization thread does not encounter synchronization commands in the kernel cache, the synchronization thread closes after a time interval (0071).

Regarding claim 25, all the limitations of this claim have been noted in the rejection of claim 9 above. In addition, Midgley discloses: wherein the main thread does not process dynamic replication types of commands unless all synchronization threads that are executing synchronization commands are completed (0050, 0058, 0063, Midgley).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cindy Nguyen whose telephone number is 571-272-4025. The examiner can normally be reached on M-F: 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gaffin Jeffrey can be reached on 571-272-4160. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and 703-872-9306 for After Final communications.

Application/Control Number: 10/611,312
Art Unit: 2161

Page 9

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

CN

Cindy Nguyen

July 7, 2006

Frantz Coby
FRANTZ COBY
PRIMARY EXAMINER